



Department of Energy

Richland Operations Office
P.O. Box 550
Richland, Washington 99352

05-AMCP-0096

DEC 21 2004

Mr. Michael A. Wilson, Program Manager
Nuclear Waste Program
State of Washington
Department of Ecology
3100 Port of Benton Boulevard
Richland, Washington 99354

Dear Mr. Wilson:


TRANSMITTAL OF THE COMPREHENSIVE ENVIRONMENTAL RESPONSE, COMPENSATION, AND LIABILITY ACT (CERCLA) NON-TIME CRITICAL REMOVAL ACTION MEMORANDUM AND ENGINEERING EVALUATION/COST ANALYSIS (EE/CA) COMMENT RESPONSIVENESS SUMMARY FOR REMOVAL OF THE 232-Z CONTAMINATED WASTE RECOVERY PROCESS FACILITY AT THE PLUTONIUM FINISHING PLANT (PFP)

Enclosed is the Non Time-Critical Removal Action Memorandum for removal and disposal of the 232-Z Contaminated Waste Recovery Process Facility from the PFP as delineated in Tri-Party Agreement Interim Milestone M-083-40. Included, as Attachments 2 and 3, with this Action Memorandum are the Comment Responsiveness Summary (CRS) and the Comment and Response Document (CRD), respectively.

The responses to the public comments for the 232-Z Engineering Evaluation/Cost Analysis (EE/CA), DOE/RL-2003-29, Revision 0, are documented in accordance with 40 CFR 300.415(n)(4)(iv), and are also transmitted to the Administration Record, in accordance with 40 CFR 300.820. Also, this Action Memo, with attachments, will be transmitted to the citizens who provided comments, in accordance with Section 1 of the Community Relations Plan for the Hanford Federal Facility Agreement and Consent Order.

If there are any questions, please contact me, or your staff may contact Matthew S. McCormick, Assistant Manager for the Central Plateau, on (509) 373-9971, or Joel Hebdon, Director, Office of Environmental Services, on (509) 376-6657, for regulatory issues.

Sincerely,


Keith A. Klein
Manager

AMCP:WCW

Attachment

cc: See Page 2

Mr. Michael A. Wilson
05-AMCP-0096

-2-

cc w/attach:

F. W. Bond, Ecology
N. Ceto, EPA Region 10
D. A. Faulk, EPA Region 10
S. E. Killoy, Polestar
L. Oates, EQM
D. S. Takasumi, FHI
B. K. Wise, FHI

cc w/o attach:

K. A. Hadley, FHI
A. M. Hopkins, FHI
S. H. Norton, FHI
C. J. Simiele, FHI

Action Memorandum

Site Name and Location:

U.S. Department of Energy
200 West Area, Plutonium Finishing Plant
232-Z Contaminated Waste Recovery Facility
Hanford Site
Benton County, Washington

Introduction

This Action Memorandum documents approval of the U.S. Department of Energy's (DOE) proposed removal action to demolish and dispose of the 232-Z Contaminated Waste Recovery Facility (Incinerator), as described herein, to mitigate the potential hazards associated with that facility. The removal plan includes stabilization of building contamination within the structure and remaining equipment, followed by building demolition and removal with disposal at the Environmental Restoration Disposal Facility (ERDF) on the Hanford Site.

A 45-day comment period was held from December 15, 2003 through January 30, 2004 for public review of the Engineering Evaluation/Cost Analysis (EE/CA) that provides an analysis of the alternatives considered for this removal action. The limited comments that were received on the EE/CA do not address the substantive nature of the planned removal action and do not require that DOE revise the EE/CA. The description of the removal action provided in the following sections will provide additional clarification for some of the expressed concerns.

This removal action reduces the potential for a release of hazardous substances that could adversely affect public health or welfare and the environment, and is protective of on-site personnel.

I. Purpose

The purpose of this non-time critical removal action is to mitigate threats to onsite workers and personnel, public health or welfare, and the environment by removing hazardous substances in the form of the contaminated incinerator facility from this site.

II. Background and Facility Description

The 232-Z Waste Incinerator Facility processed contaminated waste to recover residual plutonium through incineration and/or leaching of the scrap material. The building is located within the Plutonium Finishing Plant in the 200 West Area on the Hanford Site. The building is approximately 37 feet wide and 57 feet long. It is single storied over the process and storage areas and two stories over the service areas at the north end. The walls are of cinder block construction and materials such as asbestos, lead paint, and PCBs are believed to have been used in its construction. The building is constructed as slab-on-grade; there is no basement. There are floor penetrations for underground ductwork that formerly conveyed process exhaust to the 291-Z Exhaust Facility. Building exhaust was re-routed to a facility-specific stack in 1990.

Equipment failures, as well as spills, resulted in the release of radionuclide and other contamination. Surveys of the 232-Z Facility have indicated radionuclide contamination in a significant percentage of the building. Since 1994, the 232-Z Facility has been in a safe and stable surveillance and maintenance (S&M) mode with controlled access and a negative pressure. Planning efforts are currently underway to complete the 232-Z deactivation process (i.e., cleanout and equipment removal) in approximately fiscal year 2005, to be followed immediately by dismantlement.

The residual radionuclide inventory poses an ongoing threat to site workers. Construction materials incorporated features to reduce fire danger, including asbestos cement underground ducts and piping, asbestos cement floor filter boxes, glass asbestos fiber frames in HEPA filters, lead alkyd based paints for filter frames, and other regulated substances. A seismic analysis has indicated that the building could collapse from earthquake, snowload, or other uncontrolled events, leading to a release of the radionuclide and other hazardous substance inventory.

The contaminants of concern potentially found in the 232-Z Building include the following materials:

- Radionuclides, including Pu ²³⁸, Pu ²³⁹, Pu ²⁴⁰, Pu ²⁴¹, Pu ²⁴², and Am ²⁴¹;
- Process chemicals - nitric acid, sodium hydroxide, and aluminum nitrate nonahydrate;
- Construction materials - asbestos, lead, and polychlorinated biphenyls (PCBs) in paint and light ballasts; and
- Incinerator ash - barium, cadmium, chromium, and lead.

DOE has determined that a non-time critical removal is appropriate for the removal of the risk associated with the 232-Z Facility. This decision is consistent with Hanford Federal Facility Agreement and Compliance Order (HFFACO) Interim Milestone M-83-40, which requires that DOE "Complete Transition and Dismantlement of the 232-Z Building", as well as with the DOE and Environmental Protection Agency (EPA) joint guidance "Policy on Decommissioning Department of Energy Facilities under CERCLA". The Department of Energy is the lead agency for conducting this removal action and the Washington Department of Ecology (Ecology) is the lead regulator.

The 232-Z Building was designated as having historical significance and recommended for preservation. A 1994 Memorandum of Agreement resulted in the preparation of a Historic American Engineering Record (HAER), which was approved by the National Park Service in 1995. All of the appropriate steps have been taken to mitigate the effects of building demolition. The satisfactory completion of these steps is documented in a Memorandum of Agreement signed by DOE, the Advisory Council on Historic Preservation, and the Washington State Historic Preservation Office (1994) and affirmed in a letter of concurrence from the Washington State Office of Archaeology and Historic Preservation (September 4, 2002).

III. Threat to Public Health, Welfare, or Environment

The 232-Z Building is contaminated with hazardous substances, primarily radionuclides. A potential threat to public health or welfare and the environment exists through the deterioration

of the facility or its catastrophic collapse. Either of these scenarios could result in a release of hazardous substances to the air or soil.

IV. Endangerment Determination

Actual or threatened releases of hazardous substances from this site may present an imminent and substantial endangerment to the public health or welfare, and the environment.

V. Proposed Action and Estimated Costs

DOE prepared an Engineering Evaluation/Cost Analysis (EE/CA) to evaluate alternatives considered for the removal of the 232-Z Building. These alternatives are described below.

1.0 No Action

Alternative 1, the No Action Alternative, requires that DOE continue routine radiological and hazard monitoring of the 232-Z Building. Activities will be balanced to reduce hazards to workers while reducing the potential for release of contaminants. Over time, major repairs, such as re-roofing and reinforcing structural components may be necessary to contain contaminants within the structure.

In general, as facilities age and deteriorate, S&M must increase and become more aggressive over time. Without an enhanced S&M program, threats associated with an unplanned release and the potential for injuries to workers will increase. Conversely, a more aggressive S&M program would require workers to enter the facility more often, resulting in increased worker exposure.

The building will be removed at some point in the future as part of the overall decommissioning planned for the PFP complex; the 2035 estimated date for completion of Central Plateau activities was used as a worst-case end date. The estimated costs associated with this alternative currently are \$400,000 per year for S&M; 32 years of S&M would result in a cost of \$12,800,000. This cost is exclusive of any upgrades or other required significant maintenance costs.

2.0 Deactivate, Dismantle, and Dispose to ERDF

Under this alternative, the remaining contaminated equipment will be removed and the building decontaminated, stabilized, and dismantled leaving the building slab. The building slab will be addressed as part of future remedial program activities for underground sites throughout PFP, which is currently in the planning stages. Building debris will be disposed to the ERDF, provided it meets the ERDF waste acceptance criteria. Completion of the removal action will eliminate the risk associated with the residual inventory in the building. Some minor level of exposure risk may remain in contaminated areas of the slab that will remain after building dismantlement. The slab will be characterized to determine the nature and extent of residual contamination and sealed, as appropriate, to prevent exposure to any residual contamination. If a cover is required for the slab, it will extend beyond the building perimeter to reduce the potential for rainwater or snowmelt to transport contaminants that may be present adjacent to or beneath the slab.

The radiological content of the structure will be well characterized and controlled, and the principal hazards associated with D&D will be related to common industrial demolition processes and dust generation. Industrial safety control of airborne hazards will be coordinated with radiological contamination control to ensure that contamination is not spread and that workers are protected.

Approximately 9300 cubic feet of debris are anticipated from this project. The majority of the material is anticipated to designate as low-level waste (LLW)¹. Some percentage may also contain regulated hazardous or dangerous waste constituents, thus requiring designation as low-level mixed waste (LLMW).

The project scope includes removing an inactive section of a 232-Z duct located inside the 291-Z Exhaust Building. Below ground ductwork between the 232-Z Facility and the 291-Z Exhaust building will be surveyed, characterized for residual contamination and structural integrity, and isolated. Appropriate mitigation actions for the underground ductwork may be applied pending final disposition (e.g., decontamination, in-situ stabilization) as part of the future overall process for PFP closure. Floor penetrations for the ductwork or any utilities that penetrate the slab will be sealed as part of this removal action. Wastes disposed at the ERDF must meet the facility's waste acceptance criteria (WAC) (BHI-00139) and may require treatment and/or size reduction.

Costs for the removal action are budgeted at approximately \$5.4 million for "construction" activities and administrative costs to support construction are set at \$3.5 million. The total cost for transportation and disposal of waste to ERDF is approximately \$32,468. The total cost associated with this alternative is, therefore, estimated at \$8,932,468.

3. Deactivate, Dismantle, and Dispose to LLBG

Alternative 3 is the same as Alternative #2, with the exception that waste will be packaged for disposal at the Low Level Burial Grounds (LLBG). Costs for the construction and administrative aspects of the removal action should be equivalent to those described for alternative #2. The cost for transportation and disposal at LLBG will be approximately \$116,625. The total cost for this alternative, therefore, is estimated at \$9,088,787.

VI. Selected Alternative

DOE and Ecology selected Alternative #2 - deactivate, dismantle, and dispose to ERDF - for the removal of the 232-Z Building. All waste generated from this removal process will be managed and packaged to assure that it meets the waste acceptance criteria for ERDF. All activities will be managed to ensure that airborne contamination does not exceed criteria established in the federal Clean Air Act and the "Washington Clean Air Act" and implementing regulations. All penetrations of the building slab will be sealed and the concrete will be coated with a fixative to prevent any exposure or release from residual contamination, as appropriate. The slab will be remediated as part of the overall remediation of soils and below grade contamination to be conducted at PFP under future CERCLA documentation, currently in the planning stages. The

¹ Low level waste is defined as radioactive waste that is not high-level radioactive waste, spent nuclear fuel, transuranic waste, byproduct material, or naturally occurring radioactive material (DOE 435.1-1).

underground ductwork and any process lines from the building, as well as any adjacent soil contamination, also will be addressed at that time.

This alternative will eliminate any hazards associated with the inventory in the building. In addition, the removal process will include the removal of a section of ductwork in the basement of the 291-Z Exhaust Building and characterization of radionuclide contamination in below grade duct connecting the two buildings. This alternative is the less expensive of the two disposal options with potentially greater overall isolation of the contaminants of concern.

DOE will prepare a removal action work plan (RAWP) and all necessary supporting documentation prior to commencing this removal action and they will be forwarded to Ecology for approval.

VII. Applicable or Relevant and Appropriate Requirements

The EE/CA considered the applicable or relevant and appropriate requirements (ARARs) for the various alternatives evaluated for this removal action. Attachment 1 identifies the ARARs that will be applied for the selected removal alternative.

VIII. Outstanding Policy Issues

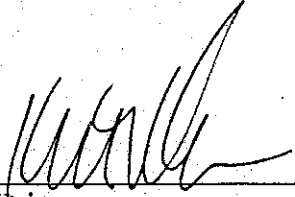
Milestone M-83-22 requires that DOE submit an EE/CA(s) for the decommissioning of the remaining structures within the PFP facility, which will evaluate the slab-on-grade endpoint and other below-grade alternatives. Standards for the ultimate remediation of below grade ductwork and final disposition of slab-on-grade conditions for the 232-Z Building will be addressed through this process.

No transuranic waste is expected to be generated during demolition of the 232-Z facility. Any transuranic waste generated during demolition activities will be shipped to WIPP for final disposition in accordance with an approved work plan and a schedule established for remedial actions, no later than September 30, 2024.

IX. Schedule

Milestone M-83-40 requires that DOE complete the removal of the 232-Z Building no later than September 30, 2006. The DOE has established a schedule for process equipment removal, decontamination, and building removal that will accomplish building removal consistent with this due date.

Signature sheet for the Non-Time Critical Removal Action for the removal of the 232-Z Facility
at USDOE Hanford Site.

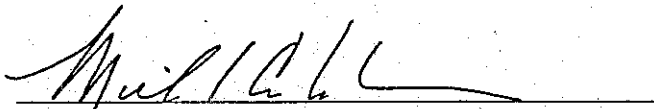


Keith Klein
Manager, Richland Operations Office
United States Department of Energy

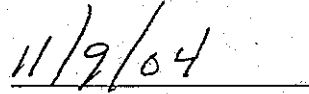
11/5/04

Date

Signature sheet for the Non-Time Critical Removal Action for the removal of the 232-Z Facility
at USDOE Hanford Site.



Mike Wilson
Program Manager, Nuclear Waste Program
Washington State Department of Ecology



Date

Attachment 1 – ARARS for the 232-Z Facility Removal Action

Waste Management Standards

Performance objectives for land disposal of low-level radioactive waste are provided in 10 CFR 61, Subpart C, are relevant and appropriate for consideration for disposal of low-level waste generated through the removal action. The relevant requirements are generally incorporated into the waste acceptance criteria for ERDF. Any TRU wastes that are generated through this removal action will be subject to the waste acceptance criteria for the Waste Isolation Pilot Plant.

The RCRA regulations (40 CFR 260 et seq.), as implemented by the State of Washington Dangerous Waste regulations (WAC 173-303), are applicable for the identification, storage, treatment, and disposal of hazardous waste and the hazardous component of mixed waste. All wastes will be treated to comply with applicable land disposal requirements (40 CFR 268) and the waste acceptance criteria for the relevant disposal facility.

The *Toxic Substances Control Act of 1976* (TSCA) regulates the management and disposal of PCBs and PCB waste through regulations found at 40 CFR 761. The ERDF is authorized to accept PCB waste solids for disposal. The LLBG can accept bulk remediation waste with PCB concentrations greater than 50 ppm in the Lined Mixed Waste Unit, and less than 50 ppm in the unlined unit.

Wastes generated under the removal action must conform to the appropriate waste acceptance criteria for the specific disposal site, i.e., ERDF Waste Acceptance Criteria (BHI 00139, 1999) and Hanford Waste Acceptance Criteria (HNF 0063, 2002) for waste that does not meet the ERDF WAC.

Air Emissions

The federal Clean Air Act of 1990 and Amendments (42 United States Code 7401 et seq.), and the Washington Clean Air Act (RCW 70.94) require regulation of air pollutants. Under federal implementing regulations, the Title 40 CFR Part 61, Subpart H requires that radionuclide airborne emissions from the facility shall be controlled so as not to exceed amounts that would cause an exposure to any member of the public of greater than 10 millirem per year effective dose equivalent. The same regulation addresses point sources (i.e., stacks or vents) emitting radioactive airborne emissions, requiring monitoring of such sources with a major potential for radioactive airborne emissions, and requiring periodic confirmatory measurement of such sources sufficient to verify low emissions. Under state implementing regulations, the federal regulations are paralleled by adoption, and in addition require added control of radioactive airborne emissions where economically and technologically feasible [WAC 246-247-040(3) and -040(4) and associated definitions]. In order to address the substantive aspect of these requirements, best or reasonable control technology will be addressed by ensuring that applicable emission control technologies (those reasonably operated in similar applications) will be utilized when economically and technologically feasible (i.e., based upon cost/benefit). Additionally, the substantive aspect of the requirements for monitoring of fugitive or non-point sources emitting radioactive airborne emissions [WAC 246-247-075(8)] will be addressed by sampling the effluent streams and/or ambient air as appropriate using reasonable and effective methods.

The federal implementing regulations also contain requirements for managing asbestos material associated with demolition and waste disposal (Title 40 CFR Part 61, Subpart M).

Cultural and Ecological Resource Protection

The National Historic Preservation Act of 1966 and its implementing regulations (36 CFR 800) require federal agencies to take into account the effect of any activity on any significant cultural resource. The Archeological and Historical Preservation Act of 1974, implemented through regulations at 36 CFR 65, requires action to recover and preserve artifacts in areas where activity may cause irreparable harm, loss, or destruction of significant artifacts. The Endangered Species Act of 1973 and implementing regulations (50 CFR 502) along with WAC 232-12-297 prohibit activities that threaten the continued existence of listed species or that destroy critical habitat. There is no remaining cultural or ecological resource protection issues associated with the removal action.

Surface and Ground Water Impacts

The Washington State Waste Discharge Program (WAC 173-216) requires the use of all known available and reasonable methods to prevent and control the discharge of wastes into the waters of the state. Building dismantlement will likely involve the use of water sprays to limit the amount of dust generated. Water volumes and run off controls will be managed consistent with site-wide discharge and surface water control plans. Water use will be evaluated against the provisions of WAC 173-216 as they apply to site activities.

The following requirements, identified in the EE/CA as potential ARARs or TBCs, are not considered to be of significance for this removal action because all demolition waste is anticipated to be appropriate for disposal to ERDF:

- The Hazardous Materials Transportation Act (49 USC 1801, et seq.) and its implementing regulations identify requirements for packaging and transportation of hazardous materials and wastes offsite.
- Because the LLBG are "offsite" disposal facilities under the CERCLA (40 CFR 300.440), the EPA must authorize their use if waste is sent to that location. If there is a need to transfer any CERCLA wastes to the CWC, that facility also must be determined to be acceptable for offsite shipment of waste.

Attachment 2 – Comment Responsiveness Summary

Introduction

The purpose of this Responsiveness Summary is to summarize and respond to public comments on the Engineering Evaluation/Cost Analysis (EE/CA) for the 232-Z Contaminated Waste Recovery Process Facility in the Plutonium Finishing Plant Complex. The EE/CA was provided for public comment on December 15, 2003.

The Tri-Parties announced the issuance of the EE/CA in the *Tri-Cities Herald*. A 45-day public comment period was held during which time the public had the opportunity to read, review, and submit comments on the 232-Z EE/CA. There were no requests for a public meeting; therefore, no public meeting was held. The document evaluates the alternatives for a non-time critical removal action for the 232-Z facility under the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA).

Public Involvement

A newspaper ad was placed in the *Tri-City Herald* on December 14, 2003 announcing the availability of the 232-Z EE/CA and the start of the public comment period.

Approximately twelve hundred copies of a fact sheet describing the EE/CA were mailed or sent out electronically. A public comment period was held from December 15 through January 30, 2004. No requests were received for a public meeting. No public meeting was held.

Comments and Responses

The agencies received written comments from four members of the public during the public comment period. Comments received covered a range of issues, including: 1) the need to address the slab and below-grade structures; 2) exploring disposal of the wastes in the low-level burial ground vs. the Environmental Restoration Disposal Facility; 3) the correction that DOE Order 435.1 supercedes DOE Order 5820.2A in governing the definition of transuranic waste; and 4) the request for detailed information, such as maps. Individuals received responses to the comments submitted.

Attachment 3 – Comment and Response Document

COMMENTER:

RICHARD SMITH

1. My only real complaint is that the second and third alternatives are different only in the waste disposal costs, which arise from the peculiar disposal cost structures at the LLBG and the ERDF, and thus do not really represent two alternatives for disposal of the structure. A better choice might be to remove the structures as in Alternative 2 plus removing the slab and the below-grade portions, and decontaminate the soils under and immediately around the structure, instead of pouring a cap on the slab.

Response: When the alternatives for this Engineering Evaluation/Cost Analysis (EE/CA) were discussed, a decision was made to address all of the below grade components of the PFP under a future Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) activity. Planning is currently under way to assess the options for these sites through an EE/CA, as required under Tri-Party Agreement (TPA) Milestone M-83-22.

2. With this EE/CA and the one for the 224-B building, a pattern is starting to appear, i.e., tear down the small buildings but leave disposition of the below-grade materials to some as yet undefined future program for final clean-up of the whole area. There ought to be some master plan/schedule for disposition of the large population of relatively small structures in the 200 Areas and for the final below-grade cleanup that would follow the disposition of the canyon buildings. Otherwise, one has the uneasy feeling that the old out-of-sight, out-of-mind syndrome might in the end be applied to these below-grade sources. If such a master plan does exist, it should be mentioned and referenced in these EE/CAs.

Response: This EE/CA is intended to address only the remediation of the 232-Z Building. Many of the smaller structures within the PFP complex have already been removed. As previously stated, under the TPA, Milestone M-83-22, a separate EE/CA is currently being prepared for disposition of the remaining facilities within PFP, and planning is underway to conduct an EE/CA to assess the options for below grade contamination within PFP. Additional CERCLA project plans address soil contamination and other sites across the 200 Area Plateau.

Hanford is a large and complex site and coordination of all activities is an enormous undertaking. The U.S. Department of Energy (USDOE) is developing an integrated site baseline. In addition, the TPA provides many of the components to a "master plan," as is suggested in this comment.

3. Add an executive summary which would include the present introductory material, identification of the considered alternatives, the proposed schedule for these activities, and a brief summary table that contains the estimated costs, risks, types and volumes of wastes arriving from the alternatives, and indicate the selected alternative.

Response: The Action Memorandum for the 232-Z Removal Action provides a summary of the materials covered in the EE/CA and will be a part of the Administrative Record, available for review by the public.

4. Add a map in Section 2.1 that illustrates the location of the 232-Z building relative to other 200 Area facilities significant to these activities, e.g., 234-5Z, 291-Z, ERDF, LLBG, etc. Add a figure in Section 2.2 that illustrates the building plan view and vertical section view, showing the locations of the remaining process glove boxes, ventilation ductwork, etc.

Response: At this time we cannot provide the requested building diagrams or maps due to existing security restrictions.

5. The last sentence of the next to the last paragraph of Section 4.2 says "These activities will commence in fiscal year (FY) 2003", which closed at the end of September 2003. Do you mean to say FY 2004?

Response: The Parties appreciate your reading the document so carefully; however, the text as it is written is correct. The language to which you refer concerns deactivation activities that preceded Comprehensive Environmental Response, Compensation, and Liability Act Deactivation & Decommissioning. Those activities did, in fact, begin during Fiscal Year 2003.

COMMENTER:

NANCY KROENING
Green Valley, Arizona

1. Will the protective cap keep rainwater and snowmelt from moving radioactive materials from the piping and around the foundation? Could the protective cap be extended outwards from the building floor slab until the Central Plateau remedial action is finished?

Response: Slab characterization is planned to determine the need for and extent of a protective coating or cap. The cap or coating will prevent rainwater and snowmelt from moving radioactive materials from the piping and foundation. If a cap is required, the cover material may be extended from three to five feet beyond the building perimeter, depending on the type of material used.

COMMENTER:

KEN NILES
Oregon Department of Energy
Salem, Oregon

1. We believe that the EE/CA provides a reasonable path forward for the 232-Z facility. You have proposed alternative 2 (dismantle and remove the building and dispose of the debris and other waste at the Environmental Restoration Disposal Facility (ERDF). We believe that alternative 3 (dismantle and remove the building and dispose of the debris and other waste at the low-level burial grounds (LLBG)) may be more appropriate, depending upon the regulation under which the wastes are generated. The projected cost difference between the two alternatives is less than 2 percent. This is an insignificant difference.

Response: Thank you for your comments. You are correct that cost difference is small. The Environmental Restoration Disposal Facility (ERDF) was selected as the disposal site because it is the appropriate disposal site for the debris from CERCLA removal actions.

2. ERDF may be acceptable for disposal of wastes generated by the proposed action provided:
- 1) the wastes are generated under the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), with the Resource Conservation and Recovery Act (RCRA) as an applicable or relevant and appropriate requirement, and
 - 2) the wastes are properly treated to comply with the land disposal restrictions of RCRA.

However, if the wastes are generated as RCRA wastes, the mixed low-level waste and hazardous wastes must be disposed in facilities licensed under RCRA. ERDF is not a RCRA licensed facility, and is ineligible to receive RCRA waste. ERDF lacks vadose zone monitoring that could detect early failures of

the disposal site. ERDF also lacks regulatory oversight by the state of Washington. The mixed waste trenches in the LLBG are licensed for this use.

On page 18 you note that "...the LLBG are "offsite" disposal facilities under the CERCLA," and argue that this is an additional barrier to their use. We disagree. Though Hanford was designated as consisting of four CERCLA sites (the 100, 200, 300, and 1100 areas), ERDF is routinely used for all Hanford CERCLA wastes without concern for this distinction. Similarly, the LLBG are fully contained within the 200 areas and are designed and intended for use in disposing of Hanford mixed waste from the 200 areas and are licensed for this purpose. There should be no impediment or barrier to their use for this waste.

Response: A CERCLA site is not defined by the geographic boundaries of where a facility is located. Rather, only those areas of contamination and certain areas in close proximity to such areas of contamination comprise a CERCLA site (see, e.g., *Determinations of TSD Acceptability Under the CERCLA Off-Site Rule*, DOE/EH-413/9707 (1997)). Specific language was included in the Record of Decision for the ERDF facility that identifies ERDF as an onsite facility for the purposes of receiving CERCLA waste from remedial activities throughout the Hanford Site: "*CERCLA Section 104(d)(4) allows the lead agency to treat [noncontiguous] facilities as one site for response purposes and, therefore, allows the lead agency to manage waste transferred between such noncontiguous facilities without having to obtain a permit. Therefore, the ERDF and the 100, 200, and 300 Area NPL sites are considered to be a single site for response purposes.*" No similar language is included in the permit for the LLBG. Waste from the removal action for the 232-Z Facility will be managed under CERCLA and dispositioned as described in the EE/CA.

3. On page 17, you cite the Atomic Energy Act as authority for these actions. You further note that DOE Orders are not promulgated, and therefore are not ARARs under CERCLA. We agree. On page 10 you cite DOE Order 5820.2A (since rescinded and superceded by DOE Order 435.1) as governing the definition of transuranic (TRU) waste. This appears in error.

Response: The commenter is correct that DOE Order 435.1 currently provides direction for radioactive waste management under the authority of the Atomic Energy Act. The definition remains the same in both documents.

4. It is not entirely clear to us what regulation currently defines TRU in this context. The Atomic Energy Act appears to be the governing law for defense origin TRU waste. WIPP is restricted to accepting defense origin waste containing more than 100 nanocuries per gram. This leaves open the question about what to do with project waste containing more than 10 and less than 100 nanocuries per gram of transuranics.

Response: Waste generated by this project containing less than 100 nanocuries per gram of transuranic isotopes will be managed as low-level radioactive waste and disposed of at ERDF in accordance with the provisions of that facility's waste acceptance criteria.

5. The Tri Parties have most often referenced the mixtures of hazardous wastes and low level radioactive wastes as "mixed low-level wastes (MLLW)." The EE/CA selects instead the term "low-level mixed waste (LLMW)." The choice of term used at Hanford should be standardized to avoid confusing the public.

Response: The terminology (LLMW) used in the EE/CA reflects the language contained within the waste acceptance documents for waste management on the Hanford Site (i.e., ERDF Waste Acceptance Criteria - BHI-00139 and Hanford Site Solid Waste Acceptance Criteria - HNF-EP-0063).

COMMENTS:

LES DAVENPORT
Battleground, Washington

1. I support the choice of recommended Alternative Two in Engineering Evaluation/Cost Analysis for the Removal of the Contaminated Waste Recovery Process Facility, DOE/RL-2003-29, Rev. 2, November 2003. The use of ERDF, a lined waste disposal facility that can accept CERCLA waste generated anywhere on the Hanford Site, is very important to me. The LLBG for LLW disposal is unlined, which is not acceptable, and is also more costly. Also, do the removal now; do not delay removal until after years of expensive S&M and costs have escalated.

Response: As described in the EE/CA, Alternative 2 is the preferred option for this removal action. The intention is to begin removal activities in FY 2004, with building demolition scheduled to take place in FY 05.

2. I agree with the second and third paragraphs of Section 3.0 regarding the underground ductwork and drain line exiting the 232-Z Facility below grade. Any further remediation work, beyond covering the slab with a fixative to eliminate the potential for exposure or release of radioactive or hazardous materials, should be coordinated with and be fully compatible with the PFP Decommissioning project closeout.

Response: Activities related to the slab, below-grade duct, and any adjacent soil contamination will be evaluated along with the below grade contamination sites at the Plutonium Finishing Plant (PFP) through an EE/CA required under TPA Milestone M-83-22. That EE/CA is currently in the planning stages.

3. Figures such as "Z Plant Complex in 200 West Area" plus a floor plan and elevation views of the 232-Z Facility to support section 2.2 would have been very helpful. The word description is insufficient for anyone to visualize (e.g., the general public) not already familiar with the Z Plant Complex including the 232-Z Facility.

Response: Additional diagrams and maps could not be provided due to existing security restrictions.

4. The Rev. 2 draft EE/CA was published in November 2003, which was already into FY 2004. The EE/CA should have updated pages 14 & 22, plus tables 3, C-1 & C-2.

Response: The referenced sections of the text refer to deactivation activities that began in FY 03 for the deactivation of the 232-Z Facility. These activities were not contingent on the approval of the EE/CA for the facility and waste volumes are related to those deactivation activities. The text reflects the fact that the building is currently being prepared for D&D and the preferred path is to conduct the remainder of these activities under CERCLA.

5. Section 7.0 References omits many Code of Federal Regulations citations: e.g., to 10 CFR 61 & 835; 29 CFR 1910, 1920 & 1926; 40 CFR 61, 300 & 761; 50 CFR 502 & 761 used in EE/CA Section 5.1.3.x. A few other citations are also missing.

Response: A number of regulations cited in the text unfortunately did not make it into the reference section. This was an oversight and care will be taken in the future to ensure that all citations in the text will be included in the reference section.

The reference to 50 CFR 761 is unclear. This section does not appear in the chapter of the code cited.

6. There are some errors in word usage. The fourth line on page 14 should be soil rather than spoil. The fourth line after the assumption table on page C-3 should be from rather than form. The fifth line in block 2, page D-2, should be of rather than f. Punctuation is also an occasional problem.

Response: Care will be taken in the future to ensure that such errors are addressed in the technical review of documents.

E-STARS™ Report
Task Detail Report
12/20/2004 0409

TASK INFORMATION			
Task#	DOE-AMCP-C-2005-0096		
Subject	Concur - Transmittal of the CERCLA Non-Time Critical Removal Action Memorandum and EE/CA Comment Responsiveness Summary for Removal of the 232-Z CWRP		
Parent Task#		Status	Open
Reference		Due	
Originator	Corbin, Margaret A.	Priority	None
Originator Phone	(509) 376-7371	Category	None
Origination Date	12/14/2004 1607	Generic1	
Remote Task#		Generic2	
Deliverable	None	Generic3	
Class	None	View Permissions	Normal
Instructions	<p>bcc: AMCP OFF File AMCP Rdg File S. L. Charboneau, AMCP E. B. Dagan, OES J. B. Hebdon, OES K. M. Hintzen, AMCP J. M. Sondag, OOD J. E. Spets, OOD S. L. Trine, OOD B. D. Williamson, OCC W. C. Woolery, AMCP RECORD NOTE: the 232-Z Action Memorandum, 04-AMCP-0486, dated 11/05/04, was handcarried to, and signed by, Mike Wilson (Ecology) on 11/9/04.</p> <p>The 232-Z EE/CA was issued for public comment on 12/15/03 to 1/30/04. Ecology (R. Bond) and EPA (D. Faulk) reviewed and commented on the comment responses on 03/11/04 and 04/08/04, respectively.</p> <p>The letters and responses to the citizens who commented on the 232-Z EE/CA will be transmitted in other correspondence.</p>		
ROUTING LISTS			
1	Route List	Inactive	
	<ul style="list-style-type: none"> Woolery, Wade C - Approve - Approved - 12/16/2004 1717 Charboneau, Stacy L - Approve - Approved - 12/16/2004 0808 Hollowell, Betty L - Approve - Approved with comments - 12/16/2004 1001 Hebdon, Joel B - Approve - Approved with comments - 12/16/2004 1556 ↳ Routing List: Route List - Inactive <ul style="list-style-type: none"> Dagan, Ellen B - Approve - Approved - 12/16/2004 0939 McCormick, Matthew S - Approve - Approved with comments - 12/20/2004 1533 		
2	Sign List	Active	
	<ul style="list-style-type: none"> Weis, Michael J - Approve - Awaiting Response <i>all for</i> 12/21/04 Klein, Keith A - Approve - Awaiting Response <i>all for</i> 12/21/04 		

ATTACHMENTS

Attachments	1. 05-AMCP-0096-wcw.docc.doc 2. Action Memo 05-AMCP-0096.pdf 3. Att 2 05-AMCP-0096-wcw.doc 4. Att 3 05-AMCP-0096-wcw.doc
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COMMENTS

Poster	Hollowell, Betty L (Dawson, Jodi L) - 12/16/2004 1012
	Approve
	Approved. B. Williamson reviewed and concurred. BLH
Poster	Hebdon, Joel B (Mays, Linda G) - 12/16/2004 0312
	Approve
	Approved by Cliff Clark for Joel Hebdon (L. Mays, 12/16/04)
Poster	McCormick, Matthew S (Castleberry, Connie J) - 12/20/2004 0312
	Approve
	Mark French concurred on hard copy as acting for Matt McCormick December 20, 2004

TASK DUE DATE HISTORY*No Due Date History***SUB TASK HISTORY**

Subtask#	DOE-AMCP-C-2005-0096.1
Subject	Concur - Transmittal of the CERCLA Non-Time Critical Removal Action Memorandum and EE/CA Comment Responsiveness Summary for Removal of the 232-Z CWRP
Originator	Hollowell, Betty L
	Routing List No Active Routing List

-- end of report --

RECEIVED

DEC 21 2004

DOE-RL/RLCC

E-STARS™ Report
Task Detail Report
12/20/2004 0757

TASK INFORMATION			
Task#	DOE-AMCP-C-2005-0096		
Subject	Concur - Transmittal of the CERCLA Non-Time Critical Removal Action Memorandum and EE/CA Comment Responsiveness Summary for Removal of the 232-Z CWRP		
Parent Task#		Status	Open
Reference		Due	
Originator	Corbin, Margaret A	Priority	None
Originator Phone	(509) 376-7371	Category	None
Origination Date	12/14/2004 1607	Generic1	
Remote Task#		Generic2	
Deliverable	None	Generic3	
Class	None	View Permissions	Normal
Instructions	<p>bcc: AMCP OFF File AMCP Rdg File S. L. Charboneau, AMCP E. B. Dagan, OES J. B. Hebdon, OES K. M. Hintzen, AMCP J. M. Sondag, OOD J. E. Spets, OOD S. L. Trine, OOD B. D. Williamson, OCC W. C. Woolery, AMCP RECORD NOTE: the 232-Z Action Memorandum, 04-AMCP-0486, dated 11/05/04, was handcarried to, and signed by, Mike Wilson (Ecology) on 11/9/04.</p> <p>The 232-Z EE/CA was issued for public comment on 12/15/03 to 1/30/04. Ecology (R. Bond) and EPA (D. Faulk) reviewed and commented on the comment responses on 03/11/04 and 04/08/04, respectively.</p> <p>The letters and responses to the citizens who commented on the 232-Z EE/CA will be transmitted in other correspondence.</p>		
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	<ul style="list-style-type: none"> Woolery, Wade C - Approve - Approved - 12/16/2004 1717 Charboneau, Stacy L - Approve - Approved - 12/16/2004 0808 Hollowell, Betty L - Approve - Approved with comments - 12/16/2004 1001 Hebdon, Joel B - Approve - Approved with comments - 12/16/2004 1556 ↳ Routing List: Route List - Inactive <ul style="list-style-type: none"> Dagan, Ellen B - Approve - Approved - 12/16/2004 0939 McCormick, Matthew S - Approve - Awaiting Response <i>M. McCormick</i> 		
2	Sign List		Draft
	<ul style="list-style-type: none"> Weis, Michael J - Approve - Awaiting Response Klein, Keith A - Approve - Awaiting Response 		

ATTACHMENTS	
Attachments	<ol style="list-style-type: none">1. 05-AMCP-0096-wcw.docc.doc2. Action Memo 05-AMCP-0096.pdf3. Att 2 05-AMCP-0096-wcw.doc4. Att 3 05-AMCP-0096-wcw.doc
COMMENTS	
Poster	Hollowell, Betty L (Dawson, Jodi L) - 12/16/2004 1012
	Approve
	Approved. B. Williamson reviewed and concurred. BLH
Poster	Hebdon, Joel B (Mays, Linda G) - 12/16/2004 0312
	Approve
	Approved by Cliff Clark for Joel Hebdon (L. Mays, 12/16/04)
TASK DUE DATE HISTORY	
No Due Date History	
SUB TASK HISTORY	
Subtask#	DOE-AMCP-C-2005-0096.1
Subject	Concur - Transmittal of the CERCLA Non-Time Critical Removal Action Memorandum and EE/CA Comment Responsiveness Summary for Removal of the 232-Z CWRP
Originator	Hollowell, Betty L
	Routing List No Active Routing List

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